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Imagine: How Creativity Works by Jonah Lehrer

In his book *Imagine: How Creativity Works*, author and journalist Jonah Lehrer explains that science is just beginning to understand how the imagination works. Lehrer presents studies and research that show that imaginative epiphanies originate in the right hemisphere of the brain--whose role it is to pull together disparate and seemingly unrelated ideas. Creativity is associated with a particular kind of brain wave called an alpha wave, which are most encouraged by relaxing and turning away from the problem we are trying to solve in order to allow the ideas to emerge on their own. Lehrer explains that epiphanies or those "eureka" moments, which he refers to as the "insight experience," tend to happen only after a prolonged mental block and then come on all at once seemingly out of nowhere. After we've wrestled with and lost to an idea so many times and we've stopped searching for the answer--that is when the answer arrives.

While the left side of the brain is excellent at analyzing distinct elements of things, the right side is key to creativity because it is adept at finding the subtle connections between distant and seemingly unrelated things, making sense of the whole. The right side is responsible for understanding things that require non-literal, lateral thinking, such as metaphors, jokes, and sarcasm. When you are trying to solve a problem and are given a hint, it is the right side that interprets the hint. Insights occur once the literal and conscious analysis of the left side of the brain has failed and the brain switches its strategy to the less literal and more far reaching strategy of the right side. With mental blocks or by distracting ourselves from the problem, we cut off the left brain's efforts to solve the problem through its literal and conscious approach, and allow the right side to unconsciously explore the mixture of disparate ideas that may allow for an insight to strike. However, both sides of the brain are vital to creativity because once the epiphany has happened and the creative idea has formed, the brain must switch to the left side in order to refine the idea, intensely focusing on each particular element of the idea.

Lehrer explains that creative solutions to problems are often had by people who are very new or even outside of the field in which they make their discoveries. He argues that insiders often fall into the conventional thinking that is associated with their particular field but outsiders who are experts in another given field have a host of ideas that the insiders do not have access to, but these outsider ideas are capable of being applied to the field of the insiders or any other field. The idea that innovations are spurred on by bringing together ideas from different fields is now beginning to be exploited by several businesses and organizations through a practice called horizontal sharing. It consists simply in having the members of the different departments in one's organization share their discoveries and conundrums with the members of every other department like Google's CSI: Crazy Search Ideas event.

One way that we can squeeze more creativity out of ourselves is by shutting down the mechanism that acts as a check on the flow of thoughts from the dorsolateral prefrontal cortex. This is the part of the brain that ensures you don't say or do the wrong thing in a given

set of circumstances, but it can can inhibit creativity. That is why improv actors warm up with exercises that work to shut this inhibitor down and Jazz musicians are able to 'deactivate' it before playing an improvised piece.

I found this book to be a great guideline for understanding creativity and what causes those "aha" moments that we've all experienced. I found the research and studies he included to support his ideas to be very interesting and often unexpected. The studies brought a factual basis to his ideas, while the stories about individual artists like John Lennon, Bob Dylan, and poet W.H. Auden brought the concepts to a more personal level, while also making the book a fun read.